grinding with passion

ditting® SWISS

Operating Instructions
KE 640

„Grind-on-Demand“

KE 640
KE 640 Vario

Dear customer / service personnel

the "Single Espresso Grinder KE 640" is a fully automatic espresso coffee grinder of the proven Ditting quality.

We have developed this product with over 80 years of experience in the manufacture of coffee grinders assuring you of high quality grinding of espresso and other types of coffee beans.

Read through and observe the operating instructions, so you and your customers will thoroughly enjoy the "KE 640". Please store the instructions in a safe place. If anything is unclear or additional information is required, please contact your authorized dealer or us as the manufacturer. We will be pleased to advise you further. We wish you unlimited pleasure and success with our product.

Ditting Maschinen AG

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1. Safety

Please read carefully and observe the following safety instructions. Failure to do so can result in damage to the grinder and danger to the user.

1.1 Symbols

The following two symbols are used in these operating instructions:

Safety Instruction:
Imminent accident danger if you fail to observe.

General Instruction:
Failure to observe can result in damage to the grinder and optimum operation cannot be guaranteed.

1.2 Safety Instructions

Only whole roasted coffee beans may be ground in the KE 640.

When unpacking please inspect whether the power supply (voltage) complies with the grinder voltage on the manufacturer's name plate on the bottom of the grinder. Never operate the grinder in damp or wet surroundings.

Always remove the electrical plug from the outlet prior to conducting maintenance or cleaning work on the grinder. Also, prior to removing the hopper, the plug must be removed from the electrical outlet.

Never operate a grinder with a damaged electrical cord. Inspect the grinder regularly for damages of the electrical cord, plug, etc.

Any required repairs may only be conducted by authorized service personnel. For this reason, please contact a customer service repair facility, your dealer or us directly as the manufacturer.

Do not exceed the maximum allowable continuous grinding time of 20 min. Afterwards, allow the grinder to cool off before the next operation.

Do not make any modifications or alterations to the grinder. The manufacturer assumes absolutely no liability for damages occurring from failure to observe these instructions.

Children can not appreciate the dangers that can exist in the operation of electrical grinders. For this reason, never leave children unsupervised with electronic appliances such as this grinder.

Never submerge the grinder in water and never operate with wet hands.

1.3 Usage Purpose

Only whole roasted coffee beans may be ground in the KE 640 grinder. Never use the grinder to grind other products or objects.

1.4 Personnel Requirements

No special requirements are necessary for the users of this grinder. It is nevertheless a prerequisite that these operating instructions have been carefully read and understood and that all instructions provided are observed. In addition, safety-conscious operation is expected.

2. Technical Data

Type	KE 640, KE 640 Vario
Voltage/Frequency	200-230V / 50/60Hz 240V / 50Hz 100-115V / 50/60Hz
Rotation 230-240V 50 Hz 110-115V 60 Hz	 1420 rpm 1640 rpm
Sound Emission Idle Operation Operation	 55 dB 75 dB
Pre-Fuse	16 A-slow
Overload Circuit Breaker 230-240V 110-115V	 4A T 7A T
Max. Permissible Running Time of the Grinder	S320% e.g.(4 sec. on/16 sec. off) (6 sec. on; 60 sec. off)*
Dimensions in mm	W 240, D 320, H550
Weight	13 kg (28.7 lbs)
Hopper Capacity	1,5 kg (3.3 lbs.)

(Please request technical data for other voltages and frequencies from the manufacturer or dealer.)

* only for 115V 60Hz

3. Description

Main Components and Operating Elements
The main components and operating elements are pictured in the illustration.

Pos. 1	Hopper with lid
Pos. 2	Lock screw for hopper
Pos. 3	Grinding fineness adjustment*
Pos. 4	Lock screw for grind adjustment lid
Pos. 5	Grind adjustment lid
Pos. 6	Grinding fineness scale
Pos. 7	Display
Pos. 8	Single shot pre-selection button
Pos. 9	Single shot timer
Pos. 10	Double shot pre-selection button
Pos. 11	Double shot timer
Pos. 12	Spout
Pos. 13	Port-a-filter mounting
Pos. 14	Port-a-filter rest
Pos. 15	Fastening screw for Port-a-filter rest
Pos. 16	Start / Stop switch
Pos. 17	Drip tray
Pos. 18	Hopper slide
Pos. 19	Main switch (back)
Pos. 20	Trip switch (back)
Pos. 21	Power cable (back)

* for Vario with adjustment screw on the lid

4. Safety Devices of the Grinder

Thermal overload circuit breaker
The motor of the grinder is protected by a thermal overload circuit breaker, which interrupts the motor's electric circuit in the event of electric overload. The trip switch, item 20, must be pressed to enable the grinder to be re-started.

The user has no influence whatsoever on this circuit breaker. If the circuit breaker trips repeatedly, an authorised service partner must be consulted, as the motor's winding may be damaged.

5. Set-up and Basic Adjustment

A grinding test run is carried out on each grinder in our factory. This is why you may find ground material residue in the grinding mechanism!

5.1 Usage Location

Place the grinder on a level, vibration-free surface.

Never operate the grinder in moist, or even worse, in wet surroundings!

5.2 Installation

You have received your grinder in operating condition. Now you only need to connect it to the main plug. Proceed as follows:

Protect your device with separate pre-fuses (not included in the scope of delivery) according to the information provided under Point 2 "Technical data".

Make sure that the pre-fuse is not overloaded by other devices (e.g. fan heaters, deep freezers).

Check whether the main voltage and frequency correspond to the information on the rating plate.

Insert the plug into the corresponding grounded outlet.

5.3 Basic Adjustment

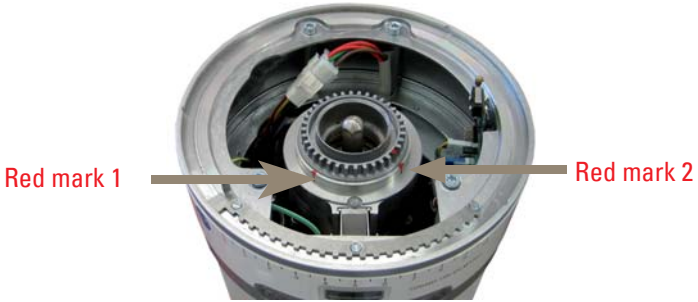
Once the device is ready to operate, a grinding test should be carried out.

Basic adjustment to a moderately fine setting has been carried out in the factory using espresso beans. The following markings have been made on the grinding mechanism (interior):

Red mark 1: Basic adjustment 0, finest setting and minimum grinding disc spacing

Red mark 2: Basic factory setting and also the position for installing and removing the lid, in order to achieve the factory setting after positioning the lid.

Never rotate the grinding discs clockwise further then the red mark 1, as the grinding discs may other-



6. Operation

Only use the KE 640 espresso grinder for whole roasted coffee beans.

Observe the safety instructions under 1.2!

The max. permissible operating cycle for 200-230V and 240V is 4 sec. ON and 16 sec. OFF, i.e. three double shots per minute. For 115V the max. permissible operating cycle is 6 sec. ON and 60 sec. OFF. Do not exceed the maximum allowable continuous grinding time of 20 min. Afterwards, allow the grinder to cool down before the next operation.

6.1 Handling the Grinder

Proper operation necessitates the steps described in the following:

6.1.1 Actuate the main switch on the rear of the grinder.

6.1.2 Open the hopper. Pour whole roasted espresso beans into the hopper from above. Never pour in coffee powder.

6.1.3 Check whether the hopper slide (item 18) is open.

6.1.4 Adjust the port-a-filter rest (item 14) to your espresso machine's port-a-filter. Proceed as follows:
Switch off the KE 640 espresso grinder by using the main switch (item 19). Use the enclosed Allen key to loosen the fastening screws (item 15) slightly and adjust the height of the port-a-filter rest.

Slide the port-a-filter between the port-a-filter mounting and the port-a-filter rest until it comes to a stop.
Push the port-a-filter rest up and tighten the fastening screws. The setting is correct when the port-a-filter independently remains in the mounting.

6.1.5 Switch on the grinder and check whether the factory grinding time settings for single S 2.0 and double D 4.0 appear in the display by pushing the buttons (Item 8 / 10). If the display corresponds to the factory settings, continue as described in point 6.1.9; if this is not the case, the time must be set (see point 6.1.6).

6.1.6 Setting the grinding time (portion quantity). Simultaneously press both buttons for approx. 3 sec. MENU appears in the display. Scroll to menu option STI using the single button (Item 8).

6.1.7 Use the Single shot timer, item 9, to set 2.0 sec. Scroll to menu option DTI using the single button. Use the Double shot timer, item 11, to set 4.0 sec.

6.1.8 To store these values, press both buttons simultaneously until SAVE appears in the display.

6.1.9 Adjust the grinding fineness by pulling the sliding detent out to the front / turn the adjustment screw* and turning the lid / grinding fineness adjustment to the 2 mark. Note that "0" is the finest setting and "10" is the coarsest setting.

*for KE 640 Vario

Rotation to the left = fine
Rotation to the right = coarse

6.1.10 Push your espresso machine's port-a-filter into the port-a-filter mounting, item 13, until the grinding process is switched on.

6.1.11 Now brew a test portion of espresso using your machine. If the result is unsatisfactory, repeat adjustment steps 6.1.6 to 6.1.8 again by varying the grinding time and grinding fineness. Carry out this process until the best coffee results have been reached.

6.2 Display / Menue

6.2.1 Calling up the menu
To call up the menu, simultaneously press both buttons for approx. 3 sec. MENU appears in the display. Scroll forward using the single button. Scroll backwards using the double shot button.

6.2.2 Grinding time setting
The grinding time range for single cups and double cups should be set between 0.1 and 10 sec. Scroll to menu option STI (time for single cups) using the single button. Use the Single shot timer, item 9, to set the time. Scroll to menu option DTI (time for double cups) using the single button. Use the Double shot timer, item 11, to set the time.

6.2.3 Quantity indicator
Scroll to menu option S using the single button. The display shows e.g. S 000020 – You have ground 20 single cup portions. Scroll to menu option D using the single button. The display shows e.g. D 000018 – You have ground 18 double cup portions.

6.2.4 Continuous quantity indicator (not resettable)
Scroll to menu option SC using the single button. The display shows e.g. SC 000127 – You have ground 127 single cup portions altogether.

Scroll to menu option DC using the single button. The display shows e.g. DC 000120 – You have ground 120 double cup portions.

Press the single button again to scroll forward to set the grinding time again (see 6.2.2).

6.2.5 Save and exit the menu
To store these values, press both buttons simultaneously until SAVE appears in the display.

6.2.6 Reset function
If you wish to reset the quantity indicator 6.2.3, switch off the grinder at the main switch. Press both buttons simultaneously and switch on the main switch again. The quantity indicator is now set to 0.

6.3 Interruption of grinding
If the grinding process is interrupted before the set grinding time has expired, the LED in the active pre-selection button flashes. The grinding process can be re-started by pushing the port-a-filter back into the mounting. The missing quantity is ground into the port-a-filter.

If this is not desired push the pre-selection button and the entire set grinding quantity or grinding time is available once again.

7. Operating faults

Defect	Cause	Remedy
The grinder hums but does not grind.	The spout is clogged.	Set grinding fineness to “coarse” and trigger the grinding process. The grinder will then grind itself free. Afterwards, return the setting to the desired grinding fineness.
	Grinding is set too fine.	Turn the grinding fineness setting to the right, to “coarse”, and trigger the grinding process. The grinder will then grind itself free. Afterwards, return the setting to the desired grinding fineness.
	A foreign object is in the grinding mechanism.	Clean the grinding mechanism as described and remove the foreign object. Observe the safety instructions!
The grinder does not grind, the display is lit, single cup is preselected	The grinding time is set to 0.	Reset the grinding time.
The grinder does not start, the operating mode display is not lit.	The main plug is not inserted.	Insert the main plug into the socket.
	The overload circuit breaker has been tripped.	Check to determine whether the trip button of the circuit breaker has jumped out. Press the trip button in again if appropriate. If the circuit breaker trips repeatedly, contact your authorised customer service centre or dealer.
	The pre-fuse has tripped.	Check the pre-fuse. Restore the pre-fuse to its initial state or replace it. Determine whether other devices are connected to this fuse.

In the case of other malfunctions or continued faults, please contact your dealer or your authorised customer service centre.

8. Cleaning

8.1 Cleaning with GRINDZ™ Grinder Cleaner

We recommend cleaning your espresso grinder once a week with our GRINDZ™ Grinder Cleaner.

Simply take the recommended dose (35 - 40g) and drop it into an empty grinder hopper. You can also use the cap of the jar for dosing. A full cap will yield between 35 - 40 grams.

Turn the fineness adjustment to medium and operate as if grinding coffee beans. Once complete, we recommend passing twice as much coffee through to purge any residue.

8.2 Cleaning the Grinder Placement Surface

8.2.1 Pull out the main plug!

8.2.2 Tilt the grinder to one side and clean the area on which it stands and the bottom of its base.

8.2.3 Both surfaces must be dry and free of oil and grease.

8.2.4 Reposition the grinder

8.3 Cleaning the Grinder Casing

Clean the outside of the casing from time to time using a damp cloth.

Observe the safety instructions under 1.2!

Be careful of sharp edges when cleaning. There is a risk of injury!

8.4 Cleaning of the Grinding Mechanism

Always pull out the main plug from the socket before carrying out maintenance or cleaning work on the grinder!

Do not let any foreign objects fall into the grinding mechanism!

8.4.1 Close the hopper slide. Remove the lock screw (Item 2). Turn the base of the hopper to the right so that the bayonet releases the hopper. Pull the hopper off upwards.

8.4.2 Remove beans out of the filler neck. Remove the lock screw (Item 4) and turn the grind adjustment lid to the right. The sliding detent automatically engages in the coarsest setting.

8.4.3 Remove the grind adjustment lid (Item 5).

8.4.4 Now you can carefully vacuum out the grinder housing.

Please do not change any grinder settings!

8.4.5 During the reassembly please make sure that the grind adjustment lid is placed in a way that the 2 engaging cones fit into the toothing of the grinding disc support. The screw of the grind adjustment has to be placed over the cut-out in the intermediate ring.

8.4.6 Lower the grind adjustment lid onto the intermediate ring and turn to the left. Fasten the lock screw (Item 4).

8.4.7 Carry out a grinding and coffee brewing test. Readjust the grinding setting if necessary.

9. Removal of the Integrated Grinder

Always pull the main plug from the socket before carrying out maintenance or cleaning work on the device!

Observe the safety instructions under 1.2!

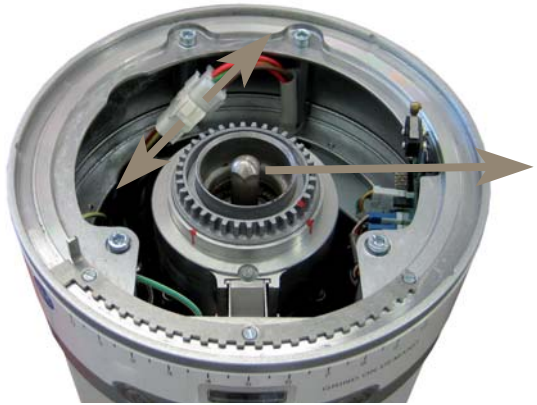
Do not let any foreign objects fall into the grinding mechanism!

9.1 Disconnect the main plug
Close and remove the hopper. Place the grinder on its side and unscrew the fastening screws. Store the screws and washers in a safe place. Re-position the grinder on its rubber feet. Proceed as described in 8.4.2 and 8.4.3.

9.2 Release the motor's plug-in connector (1)
Carefully pull the integrated grinder out of the casing (2).

9.3 Vaccum out the grinder
Carefully vacuum out the grinder casing and the integrated grinder's spout and clean with a brush. Do not damage any cables!

9.4 Component assembly is carried out in reverse order
To do this, please note 8.4.5 to 8.4.7.



10. Maintenance and Repair

Always pull the main plug from the socket before carrying out maintenance or cleaning work on the grinder!

Inspect the grinder regularly for damage, particularly to the electrical cable, plug, etc.

Any required repairs may only be conducted by authorized specialist personnel. For this reason, please contact a customer service repair facility, your dealer or us directly as the manufacturer.

10.1 Grinding Disc Replacement

10.1.1 Grinding disc replacement should only be carried out by authorised specialists or a customer service centre. “Repair manual KE 640 grinding disc replacement and basic adjustment”, article No. 6592, is required for replacing grinding discs.

10.1.2 Grinding disc replacement may also be carried out using a replacement (AT) integrated grinder. To do this, order an AT integrated grinder. On receipt of the AT integrated grinder, remove your integrated grinder from the KE 640 according to section 9 and install the AT integrated grinder into the KE 640.
Return your old integrated grinder in the packaging.

10.2 Grinding fineness adjustment with the grinder switched ON

10.2.1 Set the grinding fineness adjustment to the 0 detent.

10.2.2 Close and remove the hopper.

10.2.3 Remove the remaining beans from the filler shaft and vacuum out the grinder casing.

10.2.4 Remove the sealing ring from the filler shaft.

10.2.5 Loosen – do not unscrew – the adjusting screws with the size 2.5 Allen key.

10.2.6 Insert the adjusting handle (Service-Pack) into the filler shaft. The adjusting handle must engage in the slot in the filler shaft's transverse bar.

10.2.7 Set the double portion grinding time to 10 sec. (see section 6.2.2).

10.2.8 Hold the adjusting handle firmly and push the port-a-filter into the port-a-filter mounting until the grinder switches on.

10.2.9 Whilst the grinder is running, turn the adjusting handle to the left until a slight ringing sound becomes audible. Now turn the adjusting handle slightly to the right until no further ringing sound can be heard.

It is important to ensure that no grinding disk "rattling" can be heard at the finest setting! Otherwise the service life of the discs will be significantly reduced!

10.2.10 Tighten the adjusting screws and remove the adjusting handle from the filler shaft.

10.2.11 Insert the sealing ring again. If the sealing ring is damaged, it must be replaced.

10.2.12 Replace the hopper and allow it to engage in the bayonet and replace the lock screw (item 2). Open the hopper slide.

10.2.13 Reset the desired double portion grinding fineness and grinding time.

10.2.14 Push your espresso machine's port-a-filter into the port-a-filter mounting (item 14), until the grinding process is switched on.

10.2.15 Only remove the port-a-filter once the grinding process has been completed. Repeat approximately twice until the grinder casing is filled completely with fresh, re-adjusted ground coffee.

10.2.16 Now brew a test portion of espresso using your machine. If the result is unsatisfactory, repeat the adjustment steps as described in section 6.1.6 to 6.1.8, by varying the grinding time and grinding fineness.

11. Spare Parts

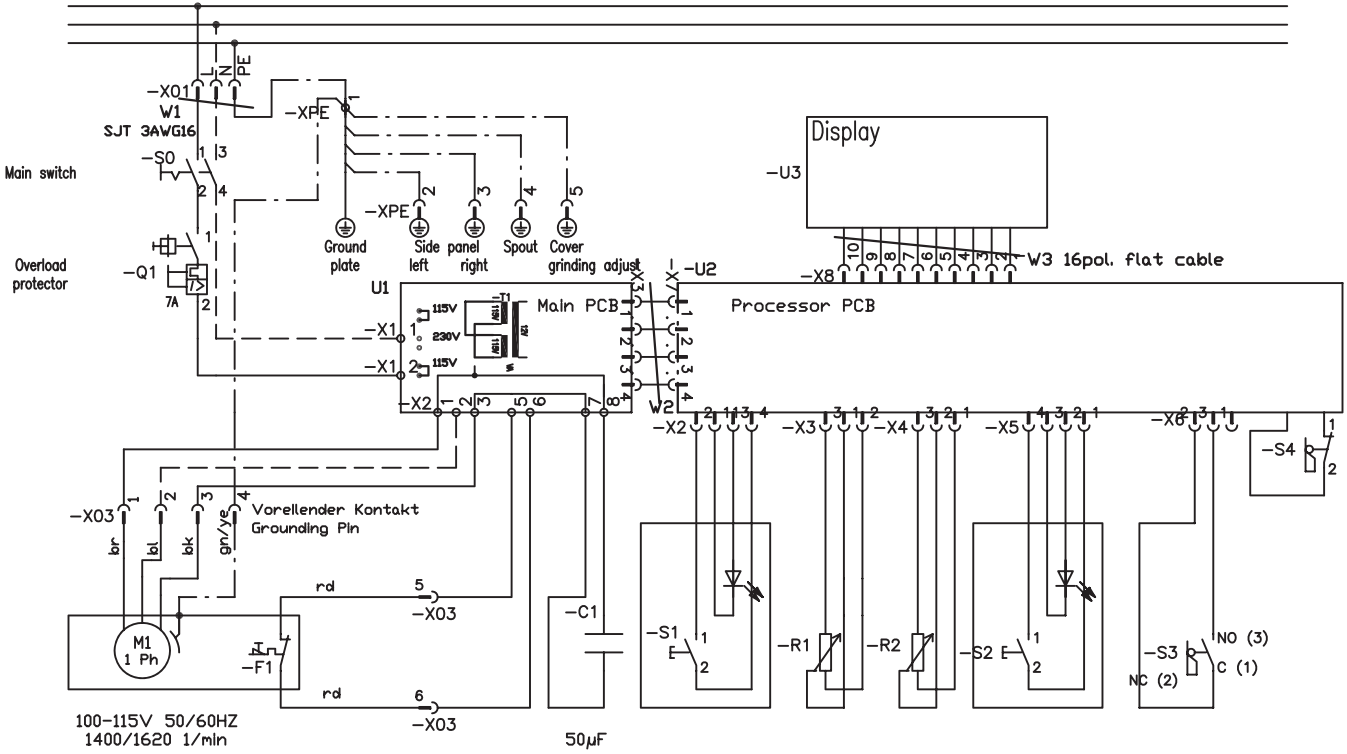
Spare parts are usually ordered from your customer service centre or your local dealer. To ensure quick and correct processing of your order, the following information is absolutely essential:

1. Type designation, serial number and voltage of the grinder (on the rating plate underneath the grinder).

2. An exact description of the part to be replaced or the article number.

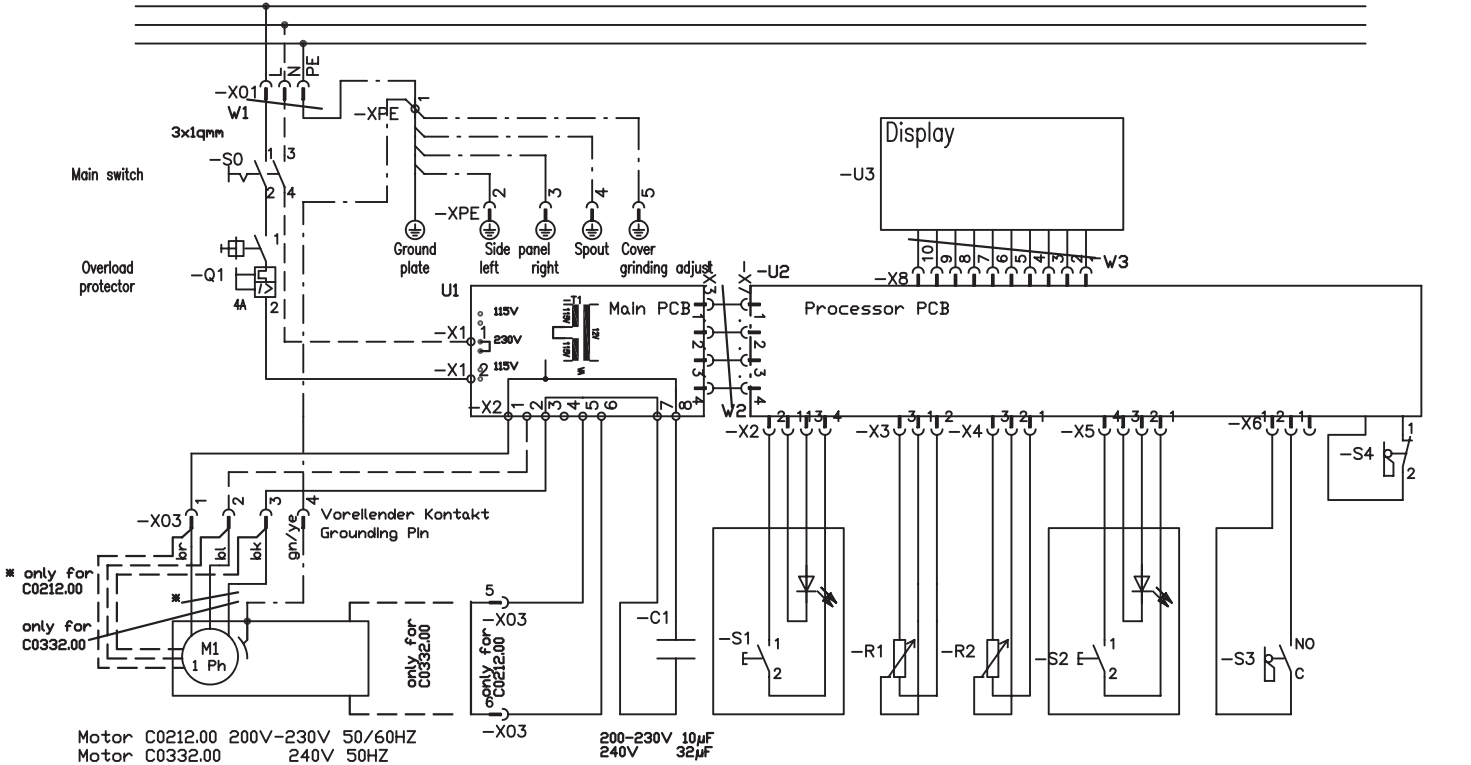
12. Wiring Diagram

12.1 Diagram 100-115V 50/60Hz



Grinder | Thermo protector | Run capacitor | Switch single shot | Grinding time single shot | Grinding time double shot | Switch double shot | Grinding starter | Safety switch cover grinding adjust

12.2 Diagram 200-230V 50/60Hz, 240V/50Hz



13. Certificate

EC Declaration Conformity
As defined by EMC-directive 89/392/EWG

Ditting Maschinen AG
Bramenstrasse 11
CH-8184 Bachenbülach - Switzerland
Telefon : +41 44 864 1800
Telefax : +41 44 864 1801

Name of the manufacturer or in the EU residential authorized person:

Hemro AG

Address of the manufacturer or the authorized person:

Bramenstrasse 11, CH-8184 Bachenbülach

announce, that the machine below

product type	: commercial device for food processing
machine description	: Espresso grinder
machine typ	: KE 640, KE 640 Vario

is in compliance with the conditions of the Directive of Machines 98/37/EG and with the main standards stipulated in the Directive concerning low tension 73/23/EWG and applies to the national laws that transpose it.

Issued in Bachenbülach	: 01.01.2008
Function of subscriber	: Managing Director
Name of subscriber	: Nils Erichsen

Signature

14. Warranty Conditions

1. The warranty period is 1 year from the date of purchase.

2. The warranty covers all damages that can be attributed to inferior materials or defective workmanship. Corresponding grinders will be repaired or replaced free-of-charge, with the exception of transport or freight charges. Transport is the responsibility of the customer. Therefore, avoid damages with all returns by correct packing.

3. The grinder may only be opened for cleaning purposes in accordance with the Operating Instructions.

4. This warranty does not cover damages which have occurred through: Improper usage, improper maintenance, lack of servicing, usage for purposes other than those intended, incorrect installation, incorrect voltage, breakage, natural wear or for reasons beyond our sphere of influence.

5. In order to maintain the warranty, only original spare parts and accessory parts may be used.

6. Observe in addition our General Delivery Conditions in their respective current version.

7. The manufacturer is in no way liable for consecutive or secondary damages.

8. The warranty does not cover costs resulting from repairs conducted by non-authorized personnel.

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Subject to change without prior notice!